

[THIN FILM TRANSISTOR ARRAY SUBSTRATE AND PHOTOLITHOGRAPHY PROCESS AND DESIGN OF THE MASK THEREOF]

Abstract

A thin film transistor array substrate, a photolithography process and a design of a mask thereof are provided. A photoresist layer is formed on a substrate, and a mask is set above the substrate. Then, the display element area of the mask is blocked in order to perform the exposure process to the photoresist layer. After that, the non-display element area of the mask is blocked in order to perform the exposure process to the photoresist layer. Finally, a development process is performed to pattern the photoresist layer. Wherein a plurality of pixel patterns is formed in the photoresist layer corresponding to the display element area, and a plurality of peripheral circuit patterns and a plurality of stitching pixel pattern are formed in the photoresist layer corresponding to the non-display element area. Moreover, each one of the stitching pixel patterns is connected to the corresponding pixel patterns.